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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,123	01/16/2004	Brian Spencer	7158-71260-03	7284

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EXAMINER	
KAUSHAL, SUMESH	
ART UNIT	**PAPER NUMBER**
1633	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/760,123	SPENCER ET AL.	
	Examiner	Art Unit	
	Sumesh Kaushal Ph.D.	1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-10,12-19,21-28 and 30-47* is/are rejected.

7)☒ Claim(s) *5,11,20 and 29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 January 0604* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/5*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's response filed on 8/22/05 has been acknowledged.
Claims 1-47 are pending and are examined in this office action.

Applicants are required to follow Amendment Practice under revised 37 CFR §1.121. The fax phone numbers for the organization where this application or proceeding is assigned is ***571-273-8300.***

Specification

The abstract of the disclosure is objected to because the abstract is greater than 150 words. Correction is required. See MPEP § 608.01(b).

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825. For compliance with sequence rules, it is necessary to include the sequence in the "Sequence Listing" and identify them with SEQ ID NO. In general, any sequence that is disclosed and/or claimed as a sequence, i.e., as a string of particular bases or amino acids, and that otherwise meets the criteria of 37 CFR 1.821(a), must be set forth in the "Sequence Listing." (see MPEP 2422.03).

The instant specification fails to comply with the requirements for patent applications containing nucleotide sequence and/or amino acid sequence disclosures because: *The specification fail to provide SEQ ID NO(s) for the nucleotide sequences disclosed on pages 33-34.*

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4, 6-10, 12-19, 21-28, 30-37, 39-43, and 45-47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The scope of invention as claimed encompasses a lentiviral vector comprising any attachment incompetent fusogenic polypeptide and any heterologous targeting polypeptide. The scope of attachment incompetent fusogenic polypeptide encompasses a lentivirus gp41, a binding defective influenza hemagglutinin polypeptide, or a functional fragment thereof. The scope of the heterologous targeting polypeptide encompasses any chimeric polypeptide comprising any membrane attachment domain and any targeting domain. The scope of invention as claimed further encompasses any lentiviral packaging construct comprising a nucleic acid encoding any and all trans-acting factors sufficient for lentiviral vector generation and an attachment incompetent fusogenic polypeptide. In addition the scope of invention as claimed encompass any and all lentiviral cis sequences sufficient for vector genome transduction.

At best the specification discloses that the attachment incompetent fusogenic polypeptide encompasses a lentivirus gp41 and a binding defective influenza hemagglutinin polypeptide. However the specification fails to disclose any a functional fragment of an attachment incompetent fusogenic polypeptide comprising a lentivirus gp41 and a binding defective influenza hemagglutinin polypeptide. Regarding heterologous targeting polypeptide the specification only discloses chimeric

polypeptides comprising CD40 transmembrane domain attached to human transferrin (hTf-CD40) and apolipoprotein E4 (ApoE4-CD40) binding domains (Spec example-I). Regarding the trans-acting factors besides lentiviral gag, pol and rev factors the specification fails to disclose any other trans-acting factor or any functional variant of gag, pol and rev which is sufficient for lentiviral generation and an attachment an attachment incompetent fusogenic polypeptide (as claimed). Regarding lentiviral cis-sequences, the specification fails to disclose what encompasses a packaging signal, a genome integration sequence, a replication promoter, post-transcriptional cis sequences, post-translational cis sequences, and an expression cassette (as claimed) by both structure and function.

Applicant is referred to the guidelines for ***Written Description Requirement*** published January 5, 2001 in the Federal Register, Vol.66, No.4, pp.1099-1110 (see http://www.uspto.gov). The disclosure of a single species is rarely, if ever, sufficient to describe a broad genus, particularly when the specification fails to describe the features of that genus, even in passing. (see In re Shokal 113USPQ283(CCPA1957); Purdue Pharma L. P. vs Faulding Inc. 56 USPQ2nd 1481 (CAFC 2000). In analyzing whether the written description requirement is met for the genus claim, it is first determined whether a representative number of species have been described by their complete structure. In the instant case, besides lentivirus gp41 and a binding defective influenza hemagglutinin polypeptide, the specification fails to disclose any other attachment incompetent fusogenic polypeptide and a functional fragment of an attachment incompetent fusogenic polypeptide comprising a lentivirus gp41 and a binding defective influenza hemagglutinin polypeptide. Furthermore besides hTf-CD40 ApoE4-CD40 the specification fails to disclose any other heterologous targeting polypeptide, which is capable of targeting any and all possible targets, wherein the heterologous targeting polypeptide comprises any membrane attachment domain and any targeting domain. Similarly the specification fails to disclose all cis and/or trans-acting factors required for the generation of retroviral vectors (as claimed). The limited disclosure in the instant specification does not provide the structure of any other attachment incompetent fusogenic polypeptide and any heterologous targeting polypeptide. Next, it is determined whether a

representative number of species have been sufficiently described by other relevant identifying characteristics. Since the specification fails to disclose any other attachment incompetent fusogenic polypeptide and any heterologous targeting polypeptideidentified by any other relevant identifying characteristics (i.e. common core structure), it is not possible to envision the claimed product. One cannot describe what one has not conceived. (See Fiddes v. Baird, 30 USP2d 1481 at 1483). As stated above the disclosure of a single species is rarely, if ever, sufficient to describe a broad genus, particularly when the specification fails to describe the features of that genus, even in passing. Therefore, the limited disclosure in the specification is not deemed sufficient to reasonably convey to one skilled in the art that the applicants were in possessions of the huge-genera recited in the claims at the time the application was filed. Thus it is concluded that the written description requirement is not satisfied for the claimed genera. The specification fails to define the minimal structure or consensus core structure that defines the genus comprising a attachment incompetent fusogenic polypeptide and a heterologous targeting polypeptide.

Furthermore the possession may be shown by actual reduction to practice, clear depiction of the invention in a detailed drawing, or by describing the invention with *sufficient relevant identifying characteristics* (as it relates to the claimed invention as a whole) such that a person skilled in the art would recognize that the inventor had possession of the claimed invention. *See, e.g., Pfaff v. WellsElectronics, Inc., 525 U.S. 55, 68, 119 S.Ct. 304, 312, 48 USPQ2d 1641, 1647 (1998); Eli Lilly, 119 F.3d at 1568, 43 USPQ2d at 1406; Amgen, Inc. v. Chugai Pharmaceutical, 927 F.2d 1200, 1206, 18 USPQ2d 1016, 1021 (Fed. Cir. 1991).* In claims to genetic material, generic statement such as "vertebrate insulin cDNA" or mammalian insulin cDNA," without more, is not adequate written description of claimed genus, since it does not distinguish genus from others except by function, and does not specifically define any of genes that fall within its definition, or describe structural features commonly possessed by members of genus that distinguish them from others; accordingly, naming type of material generally known to exist, in absence of knowledge as to what that material consists of, is not description of that material (*Eli Lilly, 119 F.3d at 1568, 43 USPQ2d at 1406).* In the instant case the attachment incompetent fusogenic polypeptide, heterologous targeting polypeptide cis or transacting factor and any functional variant thereof has been defined only by a statement of function that broadly encompasses any attachment incompetence, targeting,

viral-production and viral-transduction respectively, which conveyed no distinguishing information about the identity of the genetic material (as claimed), such as its relevant structural or physical characteristics. According to these facts, one skill in the art would conclude that applicant was not in the possession of the claimed genus because a description of only one member of this genus is not representative of the variants of genus and is insufficient to support the claim.

Claims 1-4, 6-10, 12-19, 21-28, 30-37, 39-43 and 45-47 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for attachment incompetent fusogenic polypeptide comprising a binding defective influenza hemagglutinin polypeptide; and a heterologous targeting polypeptide comprising human transferrin (hTf-CD40) and apolipoprotein E4 (ApoE4-CD40) binding domains, does not reasonably provide enablement for all attachment incompetent fusogenic polypeptide and heterologous targeting polypeptides. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Since the specification fails to disclose any other attachment incompetent fusogenic polypeptide (besides influenza hemagglutinin) and heterologous targeting polypeptides (besides hTf-CD40 ApoE4-CD40), it is unclear how one skilled in the art use the invention as claimed (supra). The specification fails to disclose that gp41 or any functional fragment thereof is an attachment incompetent fusogenic polypeptide which is devoid of specific targeting binding functions other than that required for membrane fusion. The applicant's disclosure does not enable one skilled in the art to practice the invention as claimed without further undue amount of experimentation, which requires not identification but functional characterization of any and all attachment incompetent fusogenic polypeptide and heterologous targeting polypeptides. The state of the art at the time of filing was such that co expression of a given heterologous glycoprotein (GP) with a heterologous viral core will not necessarily give rise to highly infectious viral particles. Functional associations between GPs and viral cores are rather unpredictable,

in large part because of our insufficient knowledge of the mechanisms that dictate assembly of retroviral particles. It is currently admitted that at least 2 types of mechanisms lead to assembly of homologous and heterologous, viral or cellular, GPs on viral particles. The passive model of GP incorporation implies nonobligatory interactions between the pseudotyping GP and the viral core, provided that the former is sufficiently abundant at the site of virus budding and that its cytoplasmic tail does not bear determinants that are sterically incompatible with viral assembly or virion morphology. On the other hand, in the active model of GP incorporation, interactions between the cytoplasmic tail of the pseudotyping GP and components of the virion core dictate assembly of viral particles (see Sandrin et al, Blood 100(3):823-832, 2002, page 829, col.2, para. 3, page 830, col1). Therefore considering the unpredictability associated between GPs and viral core and limited amount of disclosure found in the instant specification it is consider highly unpredictable to make and use the lentiviral vector comprising any uncharacterized attachment incompetent fusogenic polypeptide and a heterologous targeting polypeptide, wherein the targeting poly peptide is a chimeric polypeptide. At issue, under the enablement requirement of 35 U.S.C. 1 12, first paragraph is whether, given the Wands-factors, the experimentation was undue or unreasonable under the circumstances. "Experimentation must not require ingenuity beyond that to be expected of one of ordinary skill in the art." See Fields v. Conover, 443 F.2d 1386, 170 USPQ 276 (CCPA 1970). Thus it would requires an undue amount of experimentation to make and use the invention as claimed.

Claims 34-47 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method for transducing isolated cells in-vitro using the lentiviral vector (as clamed), does not reasonably provide enablement for a method or transducing isolated cells in-vivo. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims..

Nature Of Invention

The invention of instant claims relates to a method for in-vivo gene delivery

Breadth Of Claims And Guidance Provided in the Specification

The scope of invention as claimed encompasses method for transduction any cell in vivo. At best the specification teaches transduction or targeting isolated cells in-vitro. The specification as filed fails to disclose any method that enables one skilled in the art to transduce or a target gene to cell in-vivo, wherein the lentiviral vector (as claimed) has been administered to the subject via any and all routes of administration (i.e. systemic, oral, intranasal, ocular etc).

State Of Art And Predictability

The scope of the instant invention encompasses genetic modification of a cell in-vivo, therefore the invention falls in the realm of gene therapy. The gene therapy is considered highly experimental area of research at this time, and both researchers and the public agree that demonstrable progress to date has fallen short of initial expectations. No cures can as yet be attributed to gene therapy (see Juengst BMJ, 326:1410-11, 2003; Check NATURE 422:7, 2003; Couzin et al, SCIENCE 307:1028, 2005; Rosenberg et al, SCIENCE 287:1751, 2000; Anderson, NATURE 392:25-30, 1998). Most studies have neglected to include well-defined biochemical or clinical end points that would clearly indicate whether the therapy is having a desired effect. Furthermore, Recombinant DNA Advisory committee (RAC) also emphasized that expectations of current gene therapy protocols have been over sold without any apparent success.

Furthermore, it has been difficult to predict the efficiency and out come of transduced therapeutic genes because various factors govern the expression and/or therapeutic potential of transduced genes in vivo. The transduction of target cells represents the first critical step in gene therapy, which not only depends upon the type of target cells but also on the choice and/or characteristics of delivery vectors. Although the retroviral vectors are the vectors of choice, they require target cells to be in cycling state for the successful delivery of gene of interest. On the other hand vector comprising DNA viruses and liposome coated DNA have been used to transduce non

dividing cells but this results in a transient expression due to non-integration of transgenes in host cells. In addition, the use of adenoviral and adeno associated viral vector is also problematic because these vectors elicits considerable immune response in vivo, which affects the sustained expression of the transduced genes. Furthermore, in vitro gene transfer studies are not predictive of in vivo gene therapy because gene transfer frequency is much higher in-vitro models where most of cells are under going rapid cell division, which is quite not the case in-vivo environment. In addition, besides the limitations in gene transfer the problem to selectively target cells in vivo is still one of the most difficult obstacles to overcome. The viral particles binds to many cells they encounter in vivo and therefor would be diluted out before reaching their targets. In addition there exists an uncertainty about the degree to which a vector's genetic material may integrate into the host genome extends to most types of gene therapy trials. Scientists are also unsure how an insertion could affect a patient, and worry cancer could occasionally be triggered, such as occurred various trials involving gene therapy (see Check Nature 422:7, 2003). Although, the gene therapy holds much promise to come, the success will only be achieved through continued rigorous research on the most fundamental mechanisms that contribute to a genetic disease along with the pathogenesis of the disease, gene delivery and gene expression in animals.

In instant case transducing or gene targeting of cells in-vivo via any routes of administration is not considered routine in the art and without sufficient guidance to a specific route of administration the experimentation left to those skilled in the art is unnecessarily, and improperly, extensive and undue. See In re Wands 858 F.2d 731, 8 USPQ2nd 1400 (Fed. Cir, 1988). It is noted that the unpredictability of a particular area may alone provide reasonable doubt as to the accuracy of the broad statement made in support of enablement of claims. See Ex parte Singh, 17 USPQ2d 1714 (BPAI 1991). Therefore considering the state of the art and limited amount of guidance provided in the instant specification, one skill in the art would have to engage in excessive and undue amount of experimentation to exercise the invention as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1-4, 6-10, 12-19, 21-28, 30-37, 39-43 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandrin et al (Blood 100(3):823-832, 2002) in view of Bosch et al (J. Gen. Virol. 82:2485-2494, 2001) and Spiegel et al (J. Virol. 72(6):5296-5302, 1998).

The scope of instant claim encompasses a lentiviral vector comprising an attachment incompetent fusogenic polypeptide and a heterologous targeting polypeptide and method of transducing cells.

Sandrin et al teaches pseudotyped lentiviral vectors that comprises variety of heterologous targeting proteins selected from both retroviral (amphotropic murine leukemia virus [MLV-A]; gibbon ape leukemia virus [GALV]; RD114, feline endogenous virus) and non-retroviral (fowl plague virus [FPV]; Ebola virus [EboV]; vesicular stomatitis virus [VSV]; lymphocytic choriomeningitis virus [LCMV]. The cited art further teaches SIV vectors were efficiently pseudotyped with the FPV hemagglutinin, VSV-G, LCMV, and MLV-A targeting glycoprotein (GP). See page 823, abstract. Regarding heterologous targeting polypeptide the cited art further teaches making heterologous targeting polypeptides by generating chimeric GPs encoding the extracellular and transmembrane domains of GALV or RD114 GPs fused to the cytoplasmic tail (designated TR) of MLV-A GP (page 824, col2, para.1). The cited art further teaches that SIV-derived vectors pseudotyped with these GALV/TR and RD114/TR GP chimeras had significantly higher titers than vectors coated with the parental GPs. Regarding the attachment incompetent fusogenic polypeptide the cited art teaches incorporation of

FPV hemagglutinin fusion protein in making of pseudotyped lentiviral vectors (page 823, abstract). The cited art further teaches lentiviral packaging constructs comprising trans-acting factors for lentiviral vector generation, cis-sequcnes sufficient for vector genome transduction and construct comprising glycoprotein of interest (page 824, col1, para. 2, fig-1). The cited art further teaches that over 40 different host cell-derived proteins have been identified on the exterior of HIV-1 viral particles, including major histocompatibility complex class I and class II molecules, adhesion molecules, co-stimulation molecules, and complement control proteins. Additionally, many heterologous viral GPs can be incorporated into retrovirus particles and mediate infectivity. This process, known as pseudotyping, allows retroviral vectors to transduce a broader range of cells and tissues (page 829, col.2 para 3).

Even though Sandrin teaches making pseudo type lentiviral vectors expressing variety of heterologous targeting proteins the cited art does not teach the incorporation of heterologous targeting polypeptide and attachment incompetent fusogenic polypeptide in lentiviral vector.

Bosch et al teaches making recombinant lentiviral particles comprising mutant forms of human influenza hemagglutinin polypeptide (abstract, page 2486, col.2 para.2). The cited art further teaches that mutant form of influenza hemagglutinin help release virus particle in culture media (page 2491, table-2). The cited art further teaches that chimeric retroviral vector containg the influenza virus hemagglutinin has an expanded host range (page 2493, col.2, para.8).

Similarly, Spiegel et al teaches a pseudotype retroviral vector comprising paramyxovirus hemagglutinin (SV-HN) and fusion protein (SV-F). The cited art further teaches generation of pseudotype and recombinant pseudotype retroviral vectors using packaging cell lines that express the SV-HN or SV-f glycoproteins (page 5296, col.2 para.3; page 5296, col2. para 2). The cited art further teaches generation of stable SV-F expressing pseudotype packaging cell-line FE21 (page 5298, col.1 para.3).

Thus it would have been obvious to one ordinary skilled in the art at the time the instant invention was made to modify the invention of Sandrin who teaches pseudotyped lentiviral vectors expressing heterologous targeting polypeptide by

incorporating human influenza hemagglutinin polypeptide in view of Bosch and Spiegel. One would have been motivated to do so to increase the host range of lentiviral vectors. One would have a reasonable expectation of success, since making pseudotype lentiviral vectors using a genetically engineered packaging cell line that express a glycoprotein of interest has been routine in the art at the time the instant invention was made. Thus the invention as claimed is prima facie obvious in view of cited prior art of record.

Conclusion

Claims 1-4, 6-10, 12-19, 21-28, 30-47 rejected.

Claims 5, 11, 20 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten independent form including all of the limitation of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumesh Kaushal Ph.D. whose telephone number is 571-272-0769. The examiner can normally be reached on Mon-Fri. from 9AM-5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nguyen can be reached on 571-272-0731.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to **571-272-0547.** For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300.**
-sk

SUMESH KAUSHAL
PATENT EXAMINER